Instructor: Colin Carroll

Contact Info: Office: HB 447, Phone: x2840, E-mail: colin.carroll@rice.edu

Office Hours: Monday, Tuesday, 3:00-5:00 pm, Thursday 11:00am-1:00pm, and by appointment.

Textbook: Gilbert Strang *Linear Algebra and Its Applications*, Harcourt Brace Jovanovich, 3rd Ed. (Note: This is NOT the most recent edition)

Course Webpage: Can be found on http://math.rice.edu/~cc11

Course Description: Linear algebra is a subject that pervades modern science and industry. Reducing a problem to matrix algebra allows us to use computers in finding numerical solutions, and to use the theory of linear algebra to give us qualitative information about solutions. Our goals will be to develop an intuitive understanding of matrices and vector spaces, some familiarity with mathematical computing, as well and an introduction to mathematical proofs.

Homework: Homework will be assigned regularly, and collected each Thursday. Late homework assignments will not be accepted for any reason. Homework assignments are not pledged- you are encouraged to discuss these problems amongst each other, but the final write-up must be your own. Although your grade is not affected by homework as much as exams, success at homework leads to success on exams.

Computer problems: Much of the point of this class is to give you strong intuition into solving linear algebra problems, though it will be vanishingly rare for the rest of your life that you will be expected to perform such calculations without a computer. There will be weekly computer problems, which will ideally be solvable only with a combination of skills you’ve learned in class as well as a computer (I will be using MATLAB, available on all school computers, when coming up with the problems). The solution will be a (typically large) integer, and I will allow 1 attempt at the problem each day. You may make up missed problems by solving problems at Project Euler (projecteuler.net), usually at a 2-to-1 exchange rate.
**Exams**: There will be two in-class exams, tentatively planned for **Tuesday, June 21** and **Thursday, July 7**, and a cumulative final exam. If you know you will miss an exam, notify me *as soon as possible before the exam*, so that we can make alternate arrangements.

**Grades**: Grades will be based primarily on homeworks, exams, and a computer component.

- **Computer problems**: 10%
- **Homeworks**: 15%
- **Midterm Exam I**: 20%
- **Midterm Exam II**: 25%
- **Final Exam**: 30%

**Disability Support**: It is the policy of Rice University that any student with a disability receive fair and equal treatment in this course. If you have a documented disability that requires academic adjustments or accommodation, please speak with me during the first week of class. All discussions will remain confidential. Students with disabilities will also need to contact Disability Support Services in the Ley Student Center.

**Important/Special Dates for Math 355**:

- Monday, June 6: First class.
- Tuesday, June 21: Midterm exam I
- Monday, July 4: University holiday- no classes.
- Thursday, July 7: Midterm exam II
- Monday, July 11: No class.
- Friday, July 29: End of classes.
- Friday, August 5: Deadline for grade submission.